

Bird vaccine for West Nile Virus

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University of British Columbia researchers have developed a vaccine that may halt the spread of West Nile Virus (WNV) among common and endangered bird species.

WNV, a mosquito borne pathogen, arrived in North America in 1999 and is now endemic across the continent. In 2012 alone, WNV killed 286 people in the United States, and 42 people have died from the virus in Canada since 2002. There is currently no effective vaccine against WNV infection in humans or birds.

Common birds such as crows, ravens and jays, and endangered species such as the Greater Sage-Grouse and the Eastern Loggerhead Shrike, are also susceptible to WNV infection, with [mortality rates](#) in some species and populations as high as 100 per cent.

"West Nile Virus has been identified as a threat contributing to the extinction of some rare bird species and its presence in common birds facilitates the spread of the disease," says Joanne Young, lead author of a study recently published in *PLOS ONE* and a PhD student in UBC's Michael Smith Laboratories and Department of Zoology. "A bird vaccine would go a long way to helping combat these adverse effects."

Young and Prof. Wilfred Jefferies developed and tested a vaccine made from components of WNV and found it generated an effective immune response in birds. This may protect against the spread of virus not only among birds but also to other species. The team will now study the vaccine's effectiveness in protecting birds against mortality caused by

the disease.

Provided by University of British Columbia

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